

PENDING CLAIMS
Application No. 10/450,108
Attorney Docket No. 05725.1198
Filed: June 11, 2003

5

1. Composition comprising, in a physiologically acceptable medium containing a fatty phase, at least one first polymer with a weight-average molecular mass of less than 100 000, comprising a) a polymer skeleton containing hydrocarbon-based repeating units containing at least one hetero atom, and optionally b) at least one pendent fatty chain and/or at least one terminal fatty chain, which may be functionalized, containing from 6 to 120 carbon atoms and being linked to these hydrocarbon-based units, and at least one or more fibres.

15 2. Composition according to Claim 1, characterized in that the average molar mass of the first polymer is less than 100 000, preferably less than 50 000.

20 3. Composition according to Claim 1 or 2, characterized in that the units containing a hetero atom of the first polymer comprise a nitrogen atom.

25 4. Composition according to one of the preceding claims, characterized in that the units containing a hetero atom of the first polymer are amide groups.

30 5. Composition according to one of the preceding claims, characterized in that the fatty chains represent from 40% to 98% and better still from 50% to 95% of the total number of units containing a hetero atom and of fatty chains.

6. Composition according to one of the preceding claims, characterized in that the pendent fatty chains are linked directly to at least one of the said hetero atoms.

7. Composition comprising, in a physiologically acceptable medium comprising a fatty phase, at least one first polyamide polymer with a weight-average molecular mass of less than 100 000, comprising a) a 5 polymer skeleton containing amide repeating units, and b) optionally at least one pendent fatty chain and/or at least one terminal fatty chain, which may be functionalized, containing from 6 to 120 carbon atoms and being linked to these amide units, and one or more fibres.

10 8. Composition according to the preceding claim, characterized in that the fatty chains represent from 40% to 98% of the total number of amide units and of fatty chains.

15 9. Composition according to Claim 7 or 8, characterized in that the fatty chains represent from 50% to 95% of the total number of amide units and of fatty chains.

20 10. Composition according to one of Claims 7 to 10, characterized in that the pendent fatty chains are linked directly to at least one of the nitrogen atoms of the amide units.

25 11. Composition according to one of the preceding claims, characterized in that the average molar mass of the first polymer ranges from 1 000 to 100 000, preferably from 1 000 to 50 000 and better still from 1 000 to 30 000.

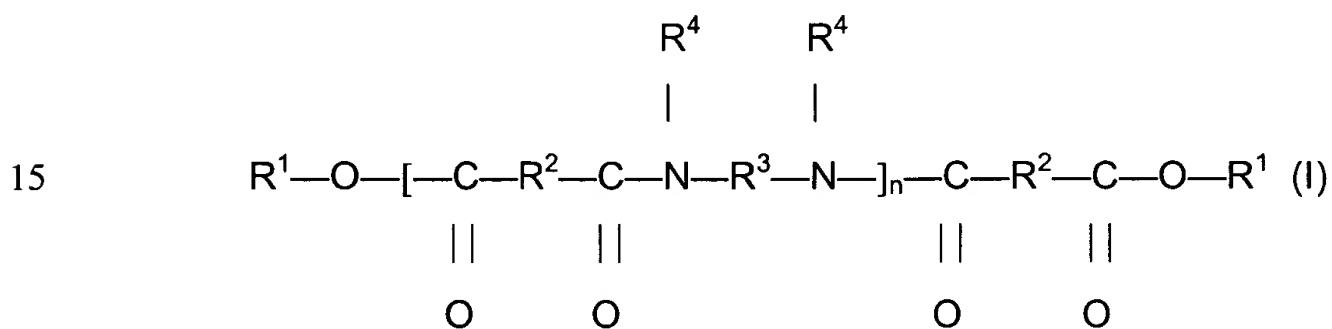
12. Composition according to one of the preceding claims, characterized in that the weight-average molar mass of the first film-forming polymer ranges from 2 000 to 20 000 and preferably from 2 000 to 10 000.

13. Composition according to one of the preceding claims, characterized in that the terminal fatty chain(s) is (are) linked to the skeleton via bonding groups.

5 14. Composition according to Claim 13, characterized in that the bonding groups are ester groups.

15. Composition according to one of the preceding claims, characterized in that the fatty chain(s) contain(s) from 12 to 68 carbon atoms.

10 16. Composition according to one of the preceding claims, characterized
in that the first polymer is chosen from polymers of formula (I) below, and
mixtures thereof:



in which n denotes a number of amide units such that the number of ester groups represents from 10% to 50% of the total number of ester and amide groups; R¹ is, independently in each case, an alkyl or alkenyl group containing at least 4 carbon atoms; R² represents, independently in each case, a C₄ to C₄₂ hydrocarbon-based group, on condition that 50% of the groups R² represent a C₃₀ to C₄₂ hydrocarbon-based group; R³ represents, independently in each case, an organic group containing at least 2 carbon atoms, hydrogen atoms and optionally one or more oxygen or nitrogen atoms; and R⁴ represents, independently in each case, a hydrogen atom, a C₁ to C₁₀ alkyl group or a direct bond to R³ or to another R⁴, such that the nitrogen atom to which R³ and R⁴ are both attached forms part of a heterocyclic structure defined by R⁴-N-R³, with at least 50% of the groups R⁴ representing a hydrogen atom.

17. Composition according to the preceding claim, characterized in that R¹ is a C₁₂ to C₂₂ alkyl group.

18. Composition according to either of Claims 15 and 16, characterized in that R² are groups containing from 30 to 42 carbon atoms.

19. Composition according to one of the preceding claims, characterized in that the first polymer is present in a content ranging from 0.01% to 10% by weight, relative to the total weight of the composition, preferably ranging from 0.05% to 5% by weight and better still ranging from 0.1% to 3% by weight.

20. Composition according to one of the preceding claims, characterized in that the fibre(s) is(are) chosen from silk, cotton, wool or flax fibres, cellulose fibres extracted in particular from wood, plants or algae, polyamide, cork, sugar can, rayon or viscose fibres, acetate fibres, in particular rayon acetate, cellulose acetate or silk acetate fibres, poly-(p-phenyleneterephthalamide) fibres, acrylic polymer fibres, in particular polymethyl methacrylate or poly-2-hydroxyethyl methacrylate fibres, polyolefin fibres and in particular polyethylene or polypropylene fibres, glass, silica or carbon fibres, in particular in graphite form, polytetrafluoroethylene, insoluble collagen, polyester, polyvinyl chloride or polyvinylidene chloride, polyvinyl alcohol, polyacrylonitrile, chitosan, polyurethane or polyethylene phthalate fibres, fibres formed from mixtures of polymers, and surgical fibres, and mixtures thereof.

21. Composition according to any one of the preceding claims, characterized in that the fibres are fibres of synthetic origin.

30 22. Composition according to one of the preceding claims, characterized in that the fibre(s) contain(s) a chemical group of the same chemical nature

as that of the units of the structuring polymer or a group capable of forming physical bonds of the same type as that of the units of the polymer.

23. Composition according to one of the preceding claims, characterized
5 in that the fibre is hydrophobic-treated.

24. Composition according to any one of the preceding claims, characterized in that the fibres are polyamide fibres or poly-(p-phenyleneterephthamide) fibres.

10

25. Composition according to any one of the preceding claims, characterized in that the fibres have a length L and a diameter D such that L/D is chosen in the range from 1.5 to 2 500, preferably from 3.5 to 500 and better still from 5 to 150.

15

26. Composition according to any one of the preceding claims, characterized in that the fibres have a length ranging from 1 nm to 20 mm, preferably from 10 nm to 5 mm and more preferably from 0.1 mm to 1.6 mm.

20

27. Composition according to one of the preceding claims, characterized in that the fibre is present in a content ranging from 0.1% to 40% by weight, relative to the total weight of the composition, preferably from 1% to 30% by weight and better still from 5% to 20% by weight.

25

28. Composition according to any one of the preceding claims, characterized in that it contains at least one wax.

29. Composition according to any one of the preceding claims,
30 characterized in that it contains at least one wax having a melting point of greater than 30°C, which may be up to 120°C.